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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,675	06/07/2000	Steven C. Murray	PA1513US	8651

7590

12/20/2001

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EXAMINER

FARAH, AHMED M

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 12/20/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,675

Applicant(s)

Murray et al.

Examiner

A. Farah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-33 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-13, 15, 16, 22-24, and 27-33 is/are rejected.

7) ☒ Claim(s) 14, 17-21, 25, and 26 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2

20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9, 10, 22, 24, 27-30 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Eckhouse (U.S. Pat. No. 5,720,772).

Eckhouse discloses a therapeutic treatment method and device for treating skin conditions, the device comprising:

- 1) a pulsed light source (flash lamp **14**),
- 2) fluorescent element (optical filters **18**), which receive incident radiation from the pulsed light source and responsively provide emitted radiation having substantially different spectral characteristics with respect to the incident radiation, and
- 3) redirector (elliptical reflector **16**) for redirecting at least a portion of the emitted radiation toward a tissue target.

The optical filters (**18**) of Eckhouse receive the incident radiation and in turn transmit ("fluoresce) optical energy having a different wavelength. The "redirector" (elliptical reflector

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16) redirects both the incident light and the diffuse light reflected from the surface of the filters toward the tissue target.

3. Claims 1, 9, 10, 15, 16, 22, 24 and 31-33 rejected under 35 U.S.C. 102(b) as being anticipated by Braun et al. (U.S. Pat. No. 5,425,754).

Braun discloses method and device for irradiation tissue, the device comprising:

- 1) radiation source (lamp 8),
- 2) cuvette (4) consisting of casing (9) and two transparent "windows" (10), which are normal to the optical path of the incident radiation,
- 3) water (11) deposited inside the cuvette, which filters out the undesired wavelengths and provides cooling to the target tissue, and
- 4) reflector (7), which directs the incident light toward the "fluorescent medium" (water 11). This reflector also "*redirects*" at least a portion of light emitted from the fluorescent medium toward the target tissue.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12, 13, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhouse in view of Talpalriu et al. (U.S. Pat. No. 6,171,302 B1).

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Eckhouse, described above, does not teach the use of optical fiber to deliver pump radiation to the fluorescent element.

Talpalriu teaches an alternative treatment apparatus and method for delivering therapeutic light to patient's skin. In reference to claim 12, Fig. 5 of Talpalriu shows optical fiber (72), which delivers light energy from radiation source to a handpiece (64) that is used to apply therapeutic energy onto a target tissue. In reference to claim 13, Fig. 2 of Talpalriu teaches that the incident radiation is delivered to the handpiece through an articulated arm.

Thus, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify Eckhouse with Talpalriu and use optical fiber or an articulated arm as an alternative light guides in order to deliver energy from external light source to handpiece for irradiating tissue.

6. Claims 4-8 and 11 are rejected under 35 U.S.C. 103(a) as being ^{unpatentable over} ~~anticipated by~~ Eckhouse in view of Sinofsky (U.S. Pat. No. 6,270,492 B1) and in view of Byren et al. (U.S. Pat. No. 4,853,528).

Eckhouse, described above, does not the use of liquid dyes or a solid medium consisting of polymer as the active medium for fluorescing the incident radiation.

Sinofsky teaches photo-therapeutic apparatus comprising a light-diffusing, fiber tip assembly (10) having a radiation scattering particles (24) selected from a group consisting of a

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polymer, glass or suitable liquids (see Col. 9, lines 27-33). However, although Sinofsky teaches the use liquids fluorescent medium, he does not particularly teach the use of liquid dyes.

As known in the art of non-linear optics, Byren teaches the use of nonlinear optical mediums (i.e., solid, liquid, or gas), which can be used for shifting light frequency. In one embodiment, he uses fluorescent dye as a frequency shifter.

Thus, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify Eckhouse in view of Sinofsky and in view of Byren to have an alternative frequency shifting means (such as a polymer or liquid dyes) to Eckhouse's filters in order to select a wavelengths suitable for a particular/desired treatment.

7. Claims 14, 17-21, 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the following references:

- | | |
|--------------------|----------------------------|
| 1. Anderson et al. | U.S. Pat. No. 5,735,844 |
| 2. Salour | U.S. Pat. No. 4,764,739 |
| 3. Eckhouse et al. | U.S. Pat. No. 6,280,438 B1 |
| 4. Waldmann | U.S. Pat. No. 5,961,543 |

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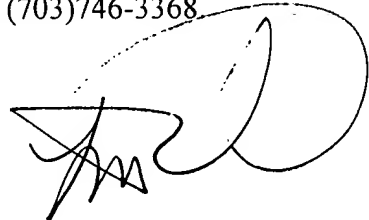
5. Fullmer et al.

U.S. Pat. No. 5,885,274

6. Eckhouse et al.

U.S. Pat. No. 5,964,749

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Farah whose telephone number is (703) 305-5787. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Linda Dvorak, can be reached on (703) 308-0994. The fax number for the Examiner is (703)746-3368.

A handwritten signature in black ink, appearing to be "Linda C. M. Dvorak", written over a large, faint circular stamp or watermark.

LINDA C. M. DVORAK
SUPERVISORY PATENT EXAMINER
GROUP 3700